COMMERCIAL STANDARD **CS150-63**

Supercedes CS150-48

# Hot-Rolled Rail Steel Bars (Produced from Tee-Section Rails)

A recorded voluntary standard of the trade published by the U.S. Department of Commerce

**For sale by the Superintendent of Documents**
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# U.S. DEPARTMENT OF COMMERCE

## NATIONAL BUREAU OF STANDARDS

### Office of Commodity Standards

## EFFECTIVE DATE

Having been passed through the regular procedures of the Office of Commodity Standards (formerly the Commodity Standards Division, Office of Technical Services; transferred to the National Bureau of Standards July 1, 1963) and approved by the acceptors hereinafter listed, this Commercial Standard is issued by the U.S. Department of Commerce, effective December 15, 1963.

LUTHER H. HODGES, *Secretary.*

## COMMERCIAL STANDARDS

Commercial Standards are developed by manufacturers, distributors, and users in cooperation with the Office of Commodity Standards of the National Bureau of Standards. Their purpose is to establish quality criteria, standard methods of test, rating, certification, and labeling of manufactured commodities, and to provide uniform bases for fair competition.

The adoption and use of a Commercial Standard is voluntary. However, when reference to a Commercial Standard is made in contracts, labels, invoices, or advertising literature, the provisions of the standard are enforcible through usual legal channels as a part of the sales contract.

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## SIMPLIFIED PRACTICE RECOMMENDATIONS

Under a similar procedure the Office of Commodity Standards cooperates with industries in the establishment of Simplified Practice Recommendations. Their purpose is to eliminate avoidable waste through the establishment of standards of practice for sizes, dimensions, varieties, or other characteristics of specific products; to simplify packaging practices; and to establish simplified methods of performing specific tasks.

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The initial printing of CS150–63 was made possible through the cooperation of the Rail Steel Bar Association.

# Hot-Rolled Rail Steel Bars (Produced from Tee-Section Rails)

**(Effective December 15, 1963)**

## 1. PURPOSE

1.1 The purpose of this Commercial Standard is to provide a nationally recognized standard of quality for hot-rolled rail steel bars and to promote fair marketing practices and a better understanding between manufacturers, distributors, and users of such products. It will also assist ultimate users in determining the types and sizes of rail steel bar products that are standard within the industry.

## 2. SCOPE

2.1 This Commercial Standard covers the mechanical properties, and the dimensions, weights, and tolerances for 17 standard structural sections of hot-rolled rail steel bars. The standard also includes a provision for the labeling and indentification of bars complying with the standard. The standard does not include the requirements for rail steel concrete reinforcing bars which are covered in Simplified Practice Recommendation R26.[1]

## 3. DEFINITION

3.1 **Rail steel.** Rail steel is the established trade and technical term used to identify products of the industry rolled from standard tee-section steel railroad rails, and is applied consistently as an accurate description of the industry's variety of products in all sizes. Products rolled from materials designated as "rerolled", "rail steel equivalent", and "rail steel quality" are not covered by this standard.

## 4. REQUIREMENTS

4.1 **Material.**

4.1.1 **Chemical composition.** Rail steel bars are not furnished in a definite chemical composition. Bars with a desired range of carbon and manganese content may be furnished however, when available, to an analysis agreed upon by the manufacturer and purchaser.

4.1.2 **Mechanical properties.** The rail steel bars shall conform to the following mechanical requirements when tested in accordance with 5.5.1.

| | |
|---|---|
| Tensile strength, minimum | 80, 000 psi |
| Yield strength, minimum | 50, 000 psi |
| Elongation, 8 in. gage length, percent minimum | $\frac{1,000,000}{\text{Tensile strength}}$ |

[1] Copies may be obtained from the Office of Technical Services, U.S. Department of Commerce, Washington, D.C., 20234. Price $1.10 each.

4.1.3 **Dimensions.**

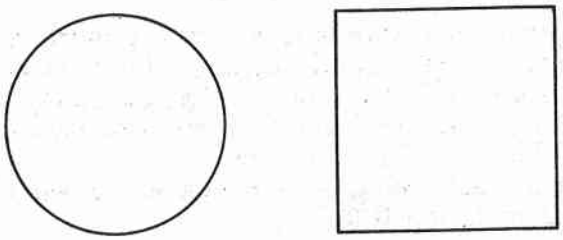
4.1.3.1 **Sizes.** The standard sizes of rail carbon steel bars are shown in tables 1 to 14 inclusive. The design of each bar shall conform to the respective illustration. The nominal dimension (see A2.1 and table AI) in inches or gage, and the approximate weights in pounds per linear foot are shown for each size of bar. The permissible variations in the dimensions of the bars shall be as shown in tables 15 to 21 inclusive.

4.1.3.2 **Lengths.** The bars shall be furnished in specified lengths or ranges of random length in feet and inches, as specified. The permissible tolerances for variations over the specified length shall be as shown in table 21.

4.1.3.2.1 **Straightness.** The bars shall not vary in straightness more than ¼ in. in any 5 ft of length or exceed in inches ¼ times the number of feet of length divided by 5.

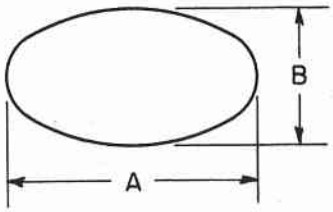
4.1.4 **Workmanship.** The bars shall have a workmanlike finish and be free of injurious defects.

TABLE 1. *Bars—rounds and squares*



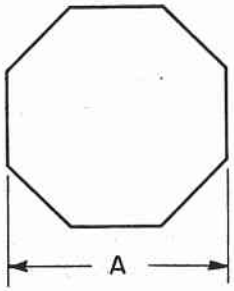
| Nominal size | Weight (Approx.) | |
|---|---|---|
| | Rounds | Squares |
| *in.* | *lb/ft* | *lb/ft* |
| ⅜ | 0.376 | 0.478 |
| ½ | .668 | .850 |
| 9/16 | .845 | 1.076 |
| ⅝ | 1.043 | 1.328 |
| 11/16 | 1.262 | 1.607 |
| ¾ | 1.502 | 1.913 |
| ⅞ | 2.044 | 2.603 |
| 1 | 2.670 | 3.400 |
| 1⅛ | 3.380 | 4.303 |
| 1¼ | 4.172 | 5.313 |

TABLE 2. *Oval bars*



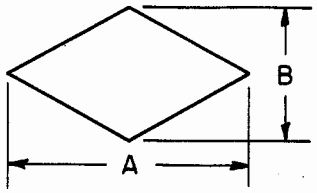

| Nominal size | | Weight (Approx.) |
|---|---|---|
| A | B | |
| *in.* | *in.* | *lb/ft* |
| 5/8 | 5/16 | 0.490 |
| 3/4 | 5/16 | .584 |
| 3/4 | 3/8 | .700 |
| 7/8 | 7/16 | .944 |

TABLE 3. *Hexagon and octagon bars*




| Nominal size (A) | Weight (approx.) | |
|---|---|---|
| | Hexagon | Octagon |
| *in.* | *lb/ft* | *lb/ft* |
| 1/2 | ---------- | 0.70 |
| 5/8 | ---------- | 1.10 |
| 3/4 | 1.656 | 1.58 |
| 13/16 | 1.944 | ---------- |
| 7/8 | 2.254 | 2.16 |
| 1 | 2.954 | 2.82 |
| 1 1/8 | ---------- | 3.56 |

TABLE 4. *Diamond bars*

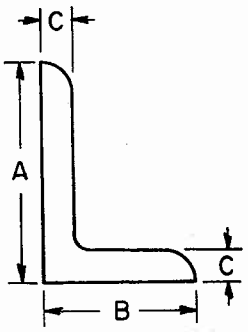



| Nominal size | | Weight (approx.) |
|---|---|---|
| A | B | |
| *in.* | *in.* | *lb/ft* |
| ⅞ | ⅝ | 1.020 |
| 1 3/16 | 1 1/16 | 1.05 |
| ⅞ | ¾ | 1.120 |

TABLE 5. *Flats and bands*

| Width | Weights, in pounds per linear foot in sizes rolled (Approx.) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thickness, inches | | | | | | | | | | | | |
| | 7/64 | ⅛ | 3/16 | ¼ | 5/16 | ⅜ | 7/16 | ½ | 9/16 | ⅝ | ¾ | ⅞ | 1 |
| *in.* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* | *lb* |
| ⅝ | 0.233 | 0.266 | 0.399 | 0.531 | 0.664 | 0.797 | 0.930 | 1.06 | ------ | ------ | ------ | ------ | ------ |
| ¾ | .279 | .319 | .478 | .636 | .797 | .957 | 1.116 | 1.275 | 1.434 | 1.59 | ------ | ------ | ------ |
| ⅞ | .326 | .372 | .558 | .743 | .929 | 1.116 | 1.302 | 1.487 | 1.674 | 1.86 | 2.23 | ------ | ------ |
| 1 | .376 | .425 | .638 | .850 | 1.06 | 1.28 | 1.49 | 1.70 | 1.92 | 2.12 | 2.55 | ------ | ------ |
| 1⅛ | ------ | .478 | .717 | .957 | 1.20 | 1.43 | 1.68 | 1.92 | 2.15 | 2.39 | 2.87 | ------ | ------ |
| 1¼ | ------ | .531 | .797 | 1.06 | 1.33 | 1.59 | 1.86 | 2.12 | 2.39 | 2.65 | 3.19 | 3.72 | 4.25 |
| 1⅜ | ------ | .585 | .875 | 1.17 | 1.46 | 1.76 | 2.05 | 2.34 | 2.63 | 2.92 | 3.51 | 4.09 | 4.68 |
| 1½ | ------ | ------ | .957 | 1.28 | 1.59 | 1.92 | 2.23 | 2.55 | 2.87 | 3.19 | 3.83 | 4.47 | 5.10 |
| 1⅝ | ------ | ------ | 1.04 | 1.38 | 1.73 | 2.08 | 2.42 | 2.72 | 3.11 | 3.46 | 4.15 | 4.84 | 5.53 |
| 1¾ | ------ | ------ | 1.15 | 1.49 | 1.86 | 2.23 | 2.60 | 2.98 | 3.35 | 3.72 | 4.47 | 5.20 | 5.95 |
| 2 | ------ | ------ | 1.28 | 1.70 | 2.12 | 2.55 | 2.98 | 3.40 | 3.83 | 4.25 | 5.10 | ------ | ------ |
| 2¼ | ------ | ------ | 1.44 | 1.92 | 2.39 | 2.87 | 3.35 | 3.83 | 4.30 | 4.78 | 5.75 | ------ | ------ |
| 2½ | ------ | ------ | 1.59 | 2.12 | 2.65 | 3.19 | 3.72 | 4.25 | ------ | ------ | ------ | ------ | ------ |
| 2¾ | ------ | ------ | 1.75 | 2.34 | 2.92 | 3.51 | 4.09 | 4.67 | ------ | ------ | ------ | ------ | ------ |
| 3 | ------ | ------ | 1.91 | 2.55 | 3.19 | 3.83 | 4.46 | 5.10 | ------ | ------ | ------ | ------ | ------ |
| 3¼ | ------ | ------ | 2.07 | 2.76 | 3.45 | 4.15 | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 3½ | ------ | ------ | 2.23 | 2.98 | 3.72 | 4.47 | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 3¾ | ------ | ------ | 2.39 | 3.19 | 3.99 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 4 | ------ | ------ | 2.55 | 3.40 | 4.25 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 4¼ | ------ | ------ | 2.71 | 3.61 | 4.52 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 4½ | ------ | ------ | 2.87 | 3.83 | 4.78 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 4¾ | ------ | ------ | 3.03 | 4.04 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| 5 | ------ | ------ | 3.19 | 4.25 | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |

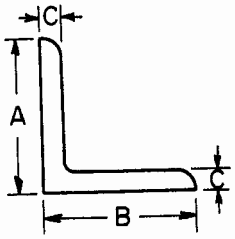
## TABLE 6. *Angles—unequal legs*




| Nominal size | | | | Weight (Approx.) | Nominal size | | | | Weight (Approx.) |
|---|---|---|---|---|---|---|---|---|---|
| A | B | C | | | A | B | C | | |
| *in.* | *in.* | *in.* | *gage* [1] | *lb/ft* | *in.* | *in.* | *in.* | *gage* [1] | *lb/ft* |
| 1 | 5/8 | 7/64 | | 0.56 | 1¾ | 1½ | 7/64 | | 1.14 |
| | | | 11 | .62 | | | | 11 | 1.28 |
| | | 1/8 | | .64 | | | 1/8 | | 1.30 |
| | | 9/64 | | .72 | | | 9/64 | | 1.49 |
| | | 5/32 | | .80 | | | 5/32 | | 1.65 |
| | | 3/16 | | .92 | | | 3/16 | | 1.96 |
| | | | | | | | 1/4 | | 2.55 |
| 1 1/16 | 13/16 | 1/8 | | .75 | | | 5/16 | | 3.13 |
| | | 3/16 | | 1.08 | | | 3/8 | | 3.67 |
| 1⅛ | ⅞ | 7/64 | | 0.80 | 2 | 1 | | 11 | 1.18 |
| | | | 11 | .87 | | | 1/8 | | 1.23 |
| | | 1/8 | | .91 | | | 5/32 | | 1.55 |
| | | 9/64 | | 1.02 | | | 3/16 | | 1.80 |
| | | 5/32 | | 1.14 | | | 1/4 | | 2.34 |
| | | 3/16 | | 1.32 | | | 3/8 | | 3.35 |
| | | 1/4 | | 1.80 | | | | | |
| 1⅜ | 1 | 7/64 | | .85 | 2 | 1⅜ | | 11 | 1.34 |
| | | 1/8 | | .96 | | | 1/8 | | 1.39 |
| | | 9/64 | | 1.08 | | | 5/32 | | 1.71 |
| | | 5/32 | | 1.20 | | | 3/16 | | 2.04 |
| | | 3/16 | | 1.40 | | | 1/4 | | 2.66 |
| 1⅜ | 1⅛ | 7/64 | | 0.89 | 2 | 1½ | | 11 | 1.38 |
| | | | 11 | .97 | | | 1/8 | | 1.44 |
| | | 1/8 | | 1.01 | | | 9/64 | | 1.62 |
| | | 9/64 | | 1.13 | | | 5/32 | | 1.80 |
| | | 5/32 | | 1.25 | | | 3/16 | | 2.12 |
| | | 3/16 | | 1.48 | | | 1/4 | | 2.77 |
| | | 1/4 | | 1.92 | | | 5/16 | | 3.39 |
| | | | | | | | 3/8 | | 3.99 |
| 1½ | 1 | | 11 | 0.97 | 2½ | 1½ | 1/8 | | 1.64 |
| | | 1/8 | | 1.01 | | | 3/16 | | 2.44 |
| | | 9/64 | | 1.13 | | | 1/4 | | 3.19 |
| | | 5/32 | | 1.25 | | | 5/16 | | 3.92 |
| | | 3/16 | | 1.48 | | | 3/8 | | 4.80 |
| 1½ | 1¼ | | 11 | 1.07 | 2½ | 2 | | 11 | 1.79 |
| | | 1/8 | | 1.12 | | | 1/8 | | 1.86 |
| | | 9/64 | | 1.25 | | | 9/64 | | 2.09 |
| | | 5/32 | | 1.38 | | | 5/32 | | 2.34 |
| | | 3/16 | | 1.64 | | | 3/16 | | 2.75 |
| | | 1/4 | | 2.13 | | | 1/4 | | 3.62 |
| | | | | | | | 5/16 | | 4.50 |
| 1¾ | 1 | | 13 | 0.83 | | | 3/8 | | 5.30 |
| | | | 12 | .97 | 3 | 2 | 3/16 | | 3.07 |
| | | | 11 | 1.05 | | | 1/4 | | 4.10 |
| | | 1/8 | | 1.10 | | | 5/16 | | 5.00 |
| | | 5/32 | | 1.35 | | | 3/8 | | 5.90 |
| | | 3/16 | | 1.60 | | | | | |
| 1¾ | 1¼ | 1/8 | | 1.23 | 3 | 2½ | 3/16 | | 3.39 |
| | | 3/16 | | 1.80 | | | 1/4 | | 4.50 |
| | | 1/4 | | 2.34 | | | 5/16 | | 5.60 |
| | | | | | | | 3/8 | | 6.60 |

[1] Birmingham Wire Gage.

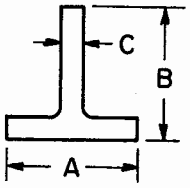
## TABLE 7. *Angles—equal legs*




| Nominal size | | | | Weight (Approx.) | Nominal size | | | | Weight (Approx.) |
|---|---|---|---|---|---|---|---|---|---|
| A | B | C | | | A | B | C | | |
| *in.* | *in.* | *in.* | *gage* [1] | *lb/ft* | *in.* | *in.* | *in.* | *gage* [1] | *lb/ft* |
| ¾ | ¾ | 7/64 | | 0.52 | 1¾ | 1¾ | 7/64 | | 1.26 |
| | | | 11 | .57 | | | | 11 | 1.38 |
| | | 1/8 | | .59 | | | 1/8 | | 1.44 |
| | | 9/64 | | .66 | | | 9/64 | | 1.62 |
| | | 5/32 | | .75 | | | 5/32 | | 1.78 |
| | | 3/16 | | .84 | | | 3/16 | | 2.12 |
| | | 1/4 | | .94 | | | 1/4 | | 2.77 |
| | | | | | | | 5/16 | | 3.39 |
| | | 3/32 | | .54 | | | 3/8 | | 3.99 |
| | | 7/64 | | .61 | | | | 11 | 1.58 |
| | | | 11 | .67 | | | 1/8 | | 1.65 |
| ⅞ | ⅞ | 1/8 | | .70 | | | 9/64 | | 1.85 |
| | | 9/64 | | .77 | | | 5/32 | | 2.06 |
| | | 5/32 | | .85 | 2 | 2 | 3/16 | | 2.44 |
| | | 3/16 | | 1.00 | | | 1/4 | | 3.19 |
| | | | | | | | 5/16 | | 3.92 |
| | | 3/32 | | 0.64 | | | 3/8 | | 4.70 |
| | | 7/64 | | .71 | | | | 11 | 1.79 |
| | | | 11 | .77 | | | 1/8 | | 1.86 |
| | | 1/8 | | .80 | | | 9/64 | | 2.10 |
| 1 | 1 | 9/64 | | .88 | | | 5/32 | | 2.34 |
| | | 5/32 | | .98 | | | 3/16 | | 2.75 |
| | | 3/16 | | 1.16 | 2¼ | 2¼ | 1/4 | | 3.62 |
| | | 1/4 | | 1.48 | | | 5/16 | | 4.50 |
| | | | | | | | 3/8 | | 5.30 |
| | | | 11 | 0.87 | | | | 11 | 2.00 |
| 1⅛ | 1⅛ | 1/8 | | .91 | | | 1/8 | | 2.08 |
| | | 3/32 | | .78 | | | 9/64 | | 2.32 |
| | | 7/64 | | .88 | | | 5/32 | | 2.54 |
| | | | 11 | .97 | | | 3/16 | | 3.07 |
| | | 1/8 | | 1.01 | 2½ | 2½ | 1/4 | | 4.10 |
| 1¼ | 1¼ | 9/64 | | 1.13 | | | 5/16 | | 5.00 |
| | | 5/32 | | 1.25 | | | 3/8 | | 5.90 |
| | | 3/16 | | 1.48 | | | | | |
| | | 1/4 | | 1.93 | | | 3/16 | | 3.71 |
| | | 5/16 | | 2.33 | | | 1/4 | | 4.90 |
| | | 5/32 | | 1.40 | 3 | 3 | 5/16 | | 6.10 |
| 1⅜ | 1⅜ | 3/16 | | 1.68 | | | 3/8 | | 7.20 |
| | | 7/64 | | 1.08 | | | | | |
| | | | 11 | 1.18 | | | | | |
| | | 1/8 | | 1.23 | | | | | |
| | | 9/64 | | 1.37 | | | | | |
| 1½ | 1½ | 5/32 | | 1.52 | | | | | |
| | | 3/16 | | 1.80 | | | | | |
| | | 1/4 | | 2.34 | | | | | |
| | | 5/16 | | 2.86 | | | | | |
| | | 3/8 | | 3.35 | | | | | |

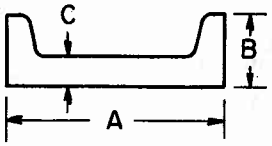
[1] Birmingham Wire Gage.

TABLE 8. *Tees—equal*



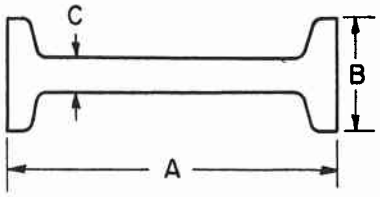

| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 1¼ | 1¼ | ⅛ | 1.15 |
| | | 3/16 | 1.50 |
| 1⅜ | 1⅜ | ⅛ | 1.20 |
| | | 9/64 | 1.25 |
| 1½ | 1½ | ⅛ | 1.35 |
| | | 3/16 | 1.90 |

TABLE 9. *Channels*



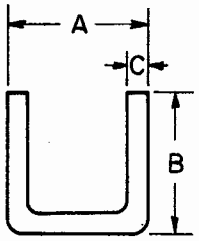

| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 1 | 3/8 | ⅛ | 0.68 |
| | ½ | ⅛ | .84 |
| 1¼ | ½ | 3/16 | 1.25 |
| | 9/16 | ¼ | 1.49 |
| 1½ | ½ | 3/16 | 1.33 |
| | ⅝ | 5/16 | 2.05 |
| 1¾ | 13/16 | ⅜ | 3.10 |
| 2 | 9/16 | 3/16 | 1.86 |
| | ⅞ | 7/16 | 4.00 |
| 2½ | 7/16 | ⅛ | 1.46 |
| | 15/32 | 5/32 | 1.72 |
| | ½ | 3/16 | 1.99 |
| | 9/16 | ¼ | 2.52 |

TABLE 10. I-*Beams*




| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 1½ | ⅝ | ⅛ | 1.30 |
| | 21/32 | 5/32 | 1.40 |
| | 11/16 | 3/16 | 1.60 |
| | ¾ | ¼ | 2.00 |
| 2⅛ | ⅝ | ⅛ | 1.46 |
| | 21/32 | 5/32 | 1.70 |
| | 11/16 | 3/16 | 1.91 |
| | ¾ | ¼ | 2.30 |

TABLE 11. U-*Bars*




| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 1¼ | 17/32 | 5/32 | 1.50 |
| | 15/16 | 3/16 | 1.50 |
| | 1¼ | 3/16 | 1.90 |
| 1⅝16 | ⅞ | 3/16 | 1.50 |
| | 15/16 | ¼ | 2.00 |
| | 15/16 | 5/16 | 2.48 |



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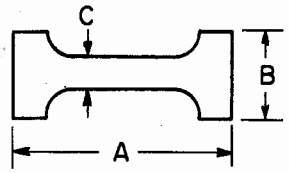
TABLE 12. *Channeled flats—square cornered*



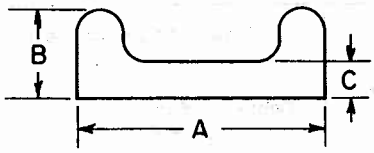

| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 1¼ | 7/16 | 3/16 | 1.25 |
| | ½ | ¼ | 1.50 |
| | 9/16 | 5/16 | 1.75 |
| | ⅝ | ⅜ | 2.00 |
| 1½ | 7/16 | 3/16 | 1.50 |
| | ½ | ¼ | 1.85 |
| | 9/16 | 5/16 | 2.15 |
| | ⅝ | ⅜ | 2.45 |
| 1¾ | 7/16 | 3/16 | 1.75 |
| | ½ | ¼ | 2.20 |
| | 9/16 | 5/16 | 2.50 |
| | ⅝ | ⅜ | 2.88 |
| 2 | 7/16 | 3/16 | 2.10 |
| | ½ | ¼ | 2.40 |
| | 9/16 | 5/16 | 2.82 |
| | ⅝ | ⅜ | 3.25 |

TABLE 13. *Channeled flats—round-cornered*

(Outside corners rounded on approximately ¼-in. radius)

| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 2 | ⅝ | 5/32 | 1.725 |
| | 13/32 | 5/32 | 1.92 |
| | 7/16 | 3/16 | 2.13 |
| 2 | ½ | ¼ | 2.55 |
| | ½ | 9/32 | 2.56 |
| | 9/16 | 5/16 | 2.98 |
| | ⅝ | ⅜ | 3.40 |

TABLE 14. *Channels—round-cornered*




| Nominal size | | | Weight (Approx.) |
|---|---|---|---|
| A | B | C | |
| *in.* | *in.* | *in.* | *lb/ft* |
| 1½ | 7/16 | 3/16 | 1.38 |
| | ½ | 5/32 | 1.28 |
| | ½ | ¼ | 1.69 |
| | 9/16 | 5/16 | 2.01 |
| | 5/8 | 3/8 | 2.32 |
| 1¾ | 5/8 | ¼ | 2.25 |
| | 1 1/16 | 5/16 | 2.65 |
| 2 | 9/16 | 3/16 | 1.88 |
| | 5/8 | ¼ | 2.30 |
| | 1 1/16 | 5/16 | 2.72 |

TABLE 15. *Permissible variations in dimensions of rounds and squares*

| Specified size, inches | Variation from size | | Out-of-round or square [1] |
|---|---|---|---|
| | Over | Under | |
| | *in.* | *in.* | *in.* |
| Over 5/16 to 7/16 incl. | 0.012 | 0.012 | 0.018 |
| Over 7/16 to 5/8 incl. | .015 | .015 | .022 |
| Over 5/8 to 7/8 incl. | .015 | .015 | .022 |
| Over 7/8 to 1 incl. | .015 | .015 | .022 |
| Over 1 to 1½ incl. | .020 | 0.20 | .030 |
| Over 1½ to 1¼ incl. | .020 | 0.20 | .030 |

[1] Out-of-round is the difference between the maximum and minimum diameters of the bar, measured at the same cross section. Out-of-square is the difference in the two dimensions at the same cross section of a square bar, each dimension being the distance between opposite faces.

TABLE 16. *Permissible variations in dimensions of square and round edge flats* [1]

| Specified widths, inches | Thickness (over or under) | | Width | |
|---|---|---|---|---|
| | To ½ inch incl. | Over ½ inch to 1 inch incl. | Over | Under |
| | *in.* | *in.* | *in.* | *in.* |
| To 1 incl. | 0.008 | 0.010 | 1/32 | 1/32 |
| Over 1 to 2 incl. | .012 | .015 | 1/32 | 1/32 |
| Over 2 to 4 incl. | .015 | .020 | 1/16 | 1/32 |
| Over 4 to 6 incl. | .015 | .020 | 3/32 | 1/16 |

[1] The standard classification of flat hot-rolled bars defines bars as not over 6 in. wide and not under 1 3/64 in. thick.

TABLE 17. *Permissible variations in dimensions of hexagons and octagons*

| Specified sizes (between opposite sides) inches | Variation from size | | Maximum difference [1] |
|---|---|---|---|
| | Over | Under | |
| | *in.* | *in.* | *in.* |
| To ½ incl. | 0.010 | 0.007 | 0.015 |
| Over ½ to 1 incl. | .015 | .015 | .020 |
| Over 1 to 1½ incl. | .021 | .015 | .025 |

[1] Greatest difference between any two of the three (hexagon) or four (octagon) possible measurements.

TABLE 18. *Permissible variations in dimensions of channels*

| Specified size of channel, inches | Variations from size [1] (over or under) | | | | Taper of outer side of either flange per inch of width |
|---|---|---|---|---|---|
| | Depth | Width of flange | Thickness of web | | |
| | | | To 3/16 in. incl. | Over 3/16 in. | |
| | *in.* | *in.* | *in.* | *in.* | *in.* |
| To 1½ incl. | 1/32 | 1/32 | 0.010 | 0.015 | 3/64 |
| Over 1½ to 3 incl. | 1/16 | 1/16 | .015 | .020 | 3/64 |

[1] Measurement for depth of section and width of flanges are overall. This table does not include special channel sections.

TABLE 19. *Permissible variations in dimensions of angles per thickness shown*

| Specified length of leg, inches [1] | Thickness (over and under) | | | Length of leg (over and under) | | |
|---|---|---|---|---|---|---|
| | To 5/16 | Over 5/16 to 3/8 incl. | Over 3/8 | To 3/16 incl. | Over 3/16 to 1/4 incl. | Over 1/4 |
| | *in.* | *in.* | *in.* | *in.* | *in.* | *in.* |
| To 1 incl. | 0.008 | 0.010 | ------- | 1/32 | 3/64 | (*) |
| Over 1 to 2 incl. | .010 | .010 | 0.012 | 3/64 | 1/16 | (*) |
| Over 2 to 3 incl. | .012 | .015 | .015 | 1/16 | 1/16 | (*) |

[1] The longer leg of an unequal angle determines the size for permissible variations. Permissible off square in either direction, 1½ degrees.
*By Agreement.

TABLE 20. *Permissible variations in dimensions of tees*

| Specified size of tee, inches [1] | Width or depth | | Thickness of flange | | Thickness of stem | | Stem—square off [2] |
|---|---|---|---|---|---|---|---|
| | Over | Under | Over | Under | Over | Under | |
| | *in.* | *in.* | *in.* | *in.* | *in.* | *in.* | *in.* |
| To 1¼ incl. | 3/64 | 3/64 | 0.010 | 0.010 | 0.005 | 0.020 | 1/32 |
| Over 1¼ to 2 incl. | 1/16 | 1/16 | .012 | .012 | .010 | .020 | 1/16 |

[1] The longer member of an unequal tee determines the size for tolerances. Measurements for both width and depth are overall.
[2] Stem-off-square is the variation from its true position on the center line of stem measured at the point.

TABLE 21. *Permissible variations in length for all bars*

| Rounds, squares, hexagons, and octagons, inches | Flats, inches | | Variations over specified length (no variations under) | | | | |
|---|---|---|---|---|---|---|---|
| | Thickness | Width | To 5 ft incl. | Over 5 to 10 ft incl. | Over 10 to 20 ft incl. | Over 20 to 30 ft incl. | Over 30 to 40 ft incl. |
| | | | *in.* | *in.* | *in.* | *in.* | *in.* |
| To 1 incl. | To 1 incl. | To 3 incl. | 3/8 | ½ | 5/8 | ¾ | 1¼ |
| Over 1 to 2 incl. | Over 1 | To 3 incl. | ½ | 5/8 | ¾ | 1 | 1½ |
| Over 1 to 2 incl. | To 1 incl. | Over 3 to 6 incl. | ½ | 5/8 | ¾ | 1 | 1½ |
| Other sections classified as bar size, shapes and angles. | | | ½ | 5/8 | ¾ | 1 | 1½ |

## 5. INSPECTION AND TESTING

5.1 **General.** The tests given herein are intended primarily for use as production tests in conjunction with manufacturing processes, inspection methods and with other tests if needed, according to 5.2, so as to insure the conformity of the rail steel bars with the requirements of this standard.

5.2 **Production, inspection, and testing.** During the process of manufacture, the manufacturer shall make such inspections and tests as are needed to maintain the quality of the product so as to be in conformity with this standard. The inspection and tests given herein (see 5.3 and 5.5) shall be made regularly during production for all rail steel bars furnished as being in conformity with this standard.

5.3 **Inspection.** The rail steel bars shall be visually inspected to determine their conformance with the workmanship, design, and dimensional requirements of this standard.

5.4 **Sampling.** One bar shall be selected at random for test purposes from each lot of bars of the same type and size in a shipment. The specimens for test purposes shall consist of individual pieces taken from the sample bar.

5.5 **Test procedures.**

5.5.1 **Mechanical properties.** The mechanical properties of the bar shall be determined in accordance with the method described in ASTM Designation E8–61T, Tentative Methods of Tension Testing of Metallic Materials,[2] using either a full-section or machined specimen.

5.5.2 **Non-compliance.** If any specimen tested fails to meet the requirements specified, two additional specimens shall be taken from the sample bar and tested, both of which shall meet the requirements in every respect, otherwise the material represented by the sample bar shall be considered as not being in compliance with this standard.

## 6. PACKAGING, MARKING AND LOADING METHODS

6.1 The rail steel bars shall be prepared for shipment in accordance with the applicable requirements of Simplified Practice Recommendation R247–62,[3] Packaging, Marking, and Loading Methods for Steel Products for Domestic Shipment.

## 7. IDENTIFICATION

7.1 **Labels and literature.** In order that purchasers may be assured that the rail steel bar actually complies with all requirements of the commercial standard, it is recommended that manufacturers include the following statement in conjunction with their name and address on labels, invoices, sales literature, etc.:

> This rail steel bar complies with Commercial Standard CS150–63 as developed by the trade under the procedure of the Commodity Standards Division, and issued by the U.S. Department of Commerce.

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[2] Copies of ASTM publications are obtainable from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa., 19103.

[3] Copies are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402. Price $1.00.

7.1.1 The following abbreviated statement is suggested when available space on labels is insufficient for the full statement:

> Complies with CS150–63 as developed by the trade and issued by the U.S. Department of Commerce.

7.2 **Hallmark.** Rail steel bars may carry the hallmark shown in figure 1 to indicate compliance with this Commercial Standard.


FIGURE 1.—HALLMARK.

## HISTORY OF PROJECT

On August 13, 1947, the Rail Steel Bar Association requested the cooperation of the National Bureau of Standards in the establishment of a commercial standard for hot-rolled rail steel bars produced from standard tee-section rails. Copies of a proposed commercial standard for hot-rolled rail steel bars were circulated on October 15, 1947, for selected representatives of manufacturers, distributors, and consumers for advance comment. All comment was carefully considered, after which the standard was adjusted in accordance with composite recommendations of those concerned and circulated on January 30, 1948, to the trade for written acceptance. Upon receipt of official acceptances estimated to represent a satisfactory majority of the production by volume, and in the absence of active valid opposition, the standard was promulgated on September 20, 1948, as Commercial Standard CS150–48.

**Current revision:** In a letter dated December 24, 1962, the Rail Steel Bar Association requested the Commodity Standards Division (now the Office of Commodity Standards) to submit to those concerned a revision of Commercial Standard CS150–48. The changes consisted primarily in the deletion of the requirements for rail steel structural tubing which is no longer manufactured by the industry, and a complete editorial revision of the standard.

The proposed revision was sent to the industry's Standing Committee for review. With their approval, the revision was circulated to all interests, including manufacturers, distributors, users and testing laboratories on July 15, 1963, for acceptance.

On November 15, 1963, the Office of Commodity Standards announced that acceptances had been received representing a satisfactory majority of the industry, and the adoption of the revision was announced effective for new production December 15, 1963, and designated CS150–63.

*Project Manager:* D. R. Stevenson, Office of Commodity Standards, National Bureau of Standards.
*Technical Adviser:* L. L. Wyman, Metallurgy Division, National Bureau of Standards.

## STANDING COMMITTEE

The following individuals comprise the membership of the Standing Committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Office of Commodity Standards, National Bureau of Standards, U.S. Department of Commerce, which acts as secretary for the committee.

W H. Jacobs, Rail Steel Bar Association, 38 South Dearborn St., Chicago, Ill., 60603 (Chairman).
H. W. Beatty, Inland Steel Co., 30 West Monroe St., Chicago, Ill., 60603.
L. E. Yentzer, Calumet Steel Division, 200 S. Michigan Ave., Chicago, Ill., 60604.
W. R. Klinkicht, The Pollak Steel Co., Box 15237, Cincinnati, Ohio, 45215.
L. G. Swisher, Haggard & Marcusson Co., 109 W. 37th St., Chicago, Ill., 60609.
O. P. Luell, Allis-Chalmers Mfg. Co., 501 N. 3d St., LaCrosse, Wis.
W. S. Spratler, Jr., Pruden Products Co., Evansville, Wis., 53536.

## ACCEPTORS

The manufacturers, distributors, users and others listed below have individually indicated in writing their acceptance of this Commercial Standard prior to its publication. The acceptances indicate an intention to utilize the standard as far as practicable, but reserve the right to depart from it as may be deemed desirable. The list is published to show the extent of recorded public support for the standard and should not be construed as indicating that all products made by the acceptors actually comply with its requirements.

Products that meet all requirements of the standard may be identified as such by a certificate, grade mark, or label. Purchasers are encouraged to require such specific representation of compliance, which may be given by the manufacturer whether or not he is an acceptor.

### ASSOCIATIONS

(General Support)

Associated General Contractors of America, Washington, D.C.

Concrete Reinforcing Steel Institute, Chicago, Ill.

Rail Steel Bar Association, Chicago, Ill.

### FIRMS

Algoma Steel Corp., Ltd., Sault Ste. Marie, Ontario, Canada
Allis Chalmers Mfg. Co., LaCrosse, Wis.
American Standards Testing Bureau, Inc., New York, N.Y.

Baker, Jr., Michael, Inc., Jackson, Miss.
Bayley, William, Co., Springfield, Ohio
Berger, Louis, and Associates, Orange, N.J.
Bloomfield Mfg. Co., Bloomfield, Ind.
Bowser-Morner Testing Laboratories, Inc., Dayton, Ohio (General Support)
Burch Plow Works, Inc., Evansville, Ind.

California Testing Laboratories, Inc., Los Angeles, Calif.
Calumet Steel Div., Borg-Warner Corp., Chicago, Ill.
Camlet, J. Thomas, Garfield, N.J.
Ceco Steel Products Corp., Chicago, Ill. (General Support)
Colorado Builders' Supply Co., Denver, Colo.
Conrad & Cummings, Binghamton, N.Y.
Contractor's Material Co., Inc., Jackson, Miss.
Conver Steel & Wire Co., Inc., New York, N.Y.
Cowin & Co., Inc., Minneapolis, Minn.

Deere & Co., Moline, Ill.
Detroit Testing Laboratory, Inc., Detroit, Mich.

Fabricators Steel Corp., Bladensburg, Md.
Fay, Spofford & Thorndike, Inc., Boston, Mass.
Federal Engineering Co., Davenport, Iowa
Fireproof Products Co., Inc., Bronx, N.Y.
Franklin Steel Div., Borg-Warner Corp., Franklin, Pa.
Frick-Gallagher Mfg. Co., Wellston, Ohio
Fridy, Gauker & Fridy, Inc., Philadelphia, Pa.

Gateway Erectors, Inc., Chicago, Ill.
General Testing Laboratories, Inc., Kansas City, Mo.
Gypsum Roof Decks, Inc., Buffalo, N.Y.

Haggard & Marcusson Co., Chicago, Ill.
Hall-Hodges Co., Inc., Norfolk, Va.
Hall Steel Co., Atlanta, Ga.
Harding & Lawler, Inc., Beaumont, Tex.
Hardwicke-Etter Co., Sherman, Tex.
Hiller, Robert J., Corp., Los Angeles, Calif. (General Support)
Hodge Boiler Works, East Boston, Mass.
Hyde Park Foundry & Machine Co., Hyde Park, Pa.

Inland Steel Co., Chicago, Ill.

J & B Building Products Co., Houston, Tex.
Jersey Shore Steel Co., Jersey Shore, Pa.

Keystone Steel & Wire Co., Peoria, Ill.

Marr-Knap-Crawfis, New Philadelphia, Ohio
Met-Fab, Inc., Williamsport, Pa.
Michelmann Steel Construction Co., Quincy, Ill.
Michigan State University, Div. of Engineering Research, E. Lansing, Mich.
Miller, Miller & Associates, Terre Haute, Ind.
Missouri Rolling Mill Corp., St. Louis, Mo.
Montague-Betts Co., Inc., Lynchburg, Va.

Northern Steel, Inc., Boston, Mass.
North Texas Steel Co., Inc., Ft. Worth, Tex.

Omaha Testing Laboratories, Omaha, Neb.

Patterson Steel Co., Tulsa, Okla.
Patzig Testing Laboratories, Inc., Des Moines, Iowa
Peck, Stow & Wilcox Co., Southington, Conn.
Philadelphia Tramrail Co., Philadelphia, Pa. (General Support)
Pittsburgh Testing Laboratory, Pittsburgh, Pa.
Pollak Steel Co., Marion, Ohio
Porter, O'Brien & Armstrong, Newark, N.J.
Pruden Products Co., Evansville, Wis.

Rist, Bright and Frost, Glens Falls, N.Y.
Robberson Steel Co., Oklahoma City, Okla
Ryerson, Jos. T., & Son, Inc., Chicago, Ill.

Schmidt Engineering Co. Inc., Chattanooga, Tenn.
Shilstone Testing Laboratory, New Orleans, La.
Shunk Mfg. Co., Inc., Bucyrus, Ohio
Southern States Steel Corp., Dallas, Tex.
Southern Testing Laboratories, Inc., Birmingham, Ala.
Southwest Pump Co., Bonham, Tex.
Southwest Steel Rolling Mills, Los Angeles, Calif.
Stolper Industries, Inc., Menomonee Falls, Wis.
Sweet's Steel Co., Williamsport, Pa.

Universal Manufacturing Corp., Zelienople, Pa.

Waco-Porter Corp., Schiller Park, Ill.
Weber Iron & Wire Co., Houston, Tex.

### GOVERNMENT

General Services Administration, Federal Supply Service Standardization Division, Hardware and Construction, Branch, Washington, D.C.
Health, Education, and Welfare, Dept. of, Washington, D.C.
Interior, Dept. of the, Washington, D.C.
Justice, Dept. of, Bureau of Prisons, Washington, D.C.

## APPENDIX A

A1. The following information is provided for general use and does not constitute a part of the requirements of this Commercial Standard.

A2. Ordering.

A2.1 **Dimensions.** The nominal section dimensions of the bars in inches and fractions or decimals should be given. Table A1 is included for the convenience of users accustomed to the metric system in ordering.

A2.2 **Lengths.** The bars should be ordered in specified lengths or ranges of random length in feet and inches, and, when multiple lengths are ordered, the specified lengths should include the amount required for any loss in cutting the desired number of units. Specifications for definite long lengths with no shorts are acceptable but are subject to negotiation. Orders are acceptable for given sections in total linear feet, total weight, or specified number of pieces of a given length. On quantities of a size up to 10 tons, shipment of 10 percent over or under is permissible, and on quantities of a size 10 tons and over, shipment of 5 percent over or under is permissible.

A2.3 **Procedures.** Certain methods and customs are followed in the industry as regular procedure in the absence of agreement to the contrary between the manufacturers and the purchaser, and are as follows:

(a) Inspections and test for acceptance of the material, when required, shall be made prior to shipment from the mill. For this purpose, the producer affords the purchaser's inspector, without charge, all reasonable facilities to determine that the material is being furnished in accordance with specifications.

(b) Producers generally make free replacement of defective material. Producers do not accept liability for unauthorized charges on defective material, and when defective material is encountered by the consignee, the producer should be notified promptly. Material should not be returned for any reason without instructions from the producer.

(c) Bars and shapes (other than concrete reinforcing bars) are invoiced on mill scale weights. On checking by the consignee, 1 percent is considered a permissible variation from invoiced weights to account for differences in kind, type, location, and accuracy of scales and errors by the weighers. Although invoices may show the number of bars in each lift, the tally should be regarded as approximate and the weight shall govern.

A2.4 **Specials.** Rail steel bars may be specified for special uses with requirements more restrictive than for ordinary practice. Features requiring special operations (as distinguished from ordinary practice) are subject to special agreement and classified as special practice, for example:

(a) Selection of raw materials for certain special properties or for limited tensile strength constitutes a special practice.

(b) When dimension tolerances more restrictive than standard are required, the material shall be specified "close tolerance" and constitutes a special practice.

(c) When length tolerances more restrictive than listed are desired or when square-cut ends free from burrs are desired, machine cutting on one or both ends may be ordered and constitutes a special practice.

(d) Annealing, normalizing, or stress relieving beyond that available through careful hot-bed control constitutes a special practice.

(e) Machine straightening for less than listed straightness tolerances constitutes a special practice.

(f) Bundling to accomodate special unloading devices without regard for customary mill handling practices constitutes a special practice.

TABLE A1. *Conversion table*

(Fractional inch to decimal inch and millimeters)

| Fractional inch | Decimal inch | Millimeters | Fractional inch | Decimal inch | Millimeters |
|---|---|---|---|---|---|
| 1/64 | 0.015625 | 0.3969 | 33/64 | 0.515625 | 13.0969 |
| 1/32 | 0.03125 | 0.7937 | 17/32 | 0.53125 | 13.4937 |
| 3/64 | 0.046875 | 1.1906 | 35/64 | 0.546875 | 13.8906 |
| 1/16 | 0.0625 | 1.5875 | 9/16 | 0.5625 | 14.2875 |
| 5/64 | 0.078125 | 1.9844 | 37/64 | 0.578125 | 14.6844 |
| 3/32 | 0.09375 | 2.3812 | 19/32 | 0.59375 | 15.0812 |
| 7/64 | 0.109375 | 2.7781 | 39/64 | 0.609375 | 15.4781 |
| 1/8 | 0.125 | 3.1750 | 5/8 | 0.625 | 15.8750 |
| 9/64 | 0.140625 | 3.5719 | 41/64 | 0.640625 | 16.2719 |
| 5/32 | 0.15625 | 3.9687 | 21/32 | 0.65625 | 16.6687 |
| 11/64 | 0.171875 | 4.3656 | 43/64 | 0.671875 | 17.0656 |
| 3/16 | 0.1875 | 4.7625 | 11/16 | 0.6875 | 17.4625 |
| 13/64 | 0.203125 | 5.1594 | 45/64 | 0.703125 | 17.8594 |
| 7/32 | 0.21875 | 5.5562 | 23/32 | 0.71875 | 18.2562 |
| 15/64 | 0.234375 | 5.9531 | 47/64 | 0.734375 | 18.6531 |
| 1/4 | 0.25 | 6.3500 | 3/4 | 0.75 | 19.0500 |
| 17/64 | 0.265625 | 6.7469 | 49/64 | 0.765625 | 19.4469 |
| 9/32 | 0.28125 | 7.1437 | 25/32 | 0.78125 | 19.8437 |
| 19/64 | 0.296875 | 7.5406 | 51/64 | 0.796875 | 20.2406 |
| 5/16 | 0.3125 | 7.9375 | 13/16 | 0.8125 | 20.6375 |
| 21/64 | 0.328125 | 8.3344 | 53/64 | 0.828125 | 21.0344 |
| 11/32 | 0.34375 | 8.7312 | 27/32 | 0.84375 | 21.4312 |
| 23/64 | 0.359375 | 9.1281 | 55/64 | 0.859375 | 21.8281 |
| 3/8 | 0.375 | 9.5250 | 7/8 | 0.875 | 22.2250 |
| 25/64 | 0.390625 | 9.9219 | 57/64 | 0.890625 | 22.6219 |
| 13/32 | 0.40625 | 10.3187 | 29/32 | 0.90625 | 23.0187 |
| 27/64 | 0.421875 | 10.7156 | 59/64 | 0.921875 | 23.4156 |
| 7/16 | 0.4375 | 11.1125 | 15/16 | 0.9375 | 23.8125 |
| 29/64 | 0.453125 | 11.5094 | 61/64 | 0.953125 | 24.2094 |
| 15/32 | 0.46875 | 11.9062 | 31/32 | 0.96875 | 24.6062 |
| 31/64 | 0.484375 | 12.3031 | 63/64 | 0.984375 | 25.0031 |
| 1/2 | 0.50 | 12.7000 | 1 | 1.00000 | 25.4000 |

1 inch=25.4 millimeter.
1 millimeter=.03937 inch.

# ACCEPTANCE OF COMMERCIAL STANDARD

## CS150-63, Hot-Rolled Rail Steel Bars (Produced from Tee-Section Rails)

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this Commercial Standard.

Date _____

Office of Commodity Standards
National Bureau of Standards
U.S. Department of Commerce
Washington, D.C., 20234

Gentlemen:

We believe that this Commercial Standard constitutes a useful standard of practice, and we individually plan to utilize it as far as practicable in the

production [1] distribution [1] purchase [1] testing [1]

of this commodity.

We reserve the right to depart from the standard as we deem advisable.

We understand, of course, that only those articles which actually comply with the standard in all respects can be identified or labeled as conforming thereto.

Signature of authorized officer _____
(In ink)

_____

(Kindly typewrite or print the following lines)

Name and title of above officer _____

Organization _____
(Fill in exactly as it should be listed)

Street address _____

City, State, and Zip Code _____

(Cut on this line)

[1] Underscore the applicable words. Please see that separate acceptances are filed for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interest, trade associations, trade papers, etc., desiring to record their general support, the words "General support" should be added after the signature.

## TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial Standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of Commercial Standards is to establish, for specific commodities, nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the standard, where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function, performed by the Department of Commerce in the voluntary establishment of Commercial Standards on a nationwide basis is fourfold: First, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or of the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

U. S. GOVERNMENT PRINTING OFFICE : 1964 O - 715-370

CS 150-63

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federal register

## DEPARTMENT OF COMMERCE

### National Bureau of Standards

### HOT-ROLLED RAIL STEEL BARS

### Action on Proposed Withdrawal of Commercial Standard

In accordance with § 10.12 of the Department's "Procedures for the Development of Voluntary Product Standards" (15 CFR Part 10, as revised; 35 FR 8349 dated May 28, 1970), notice is hereby given of the withdrawal of Commercial Standard CS 150–63, "Hot-Rolled Rail Steel Bars (Produced from Tee-Section Rails)."

It has been determined that this standard is no longer technically adequate and no longer used by the industry, and in view of the existence of an up-to-date standard identified as American Society for Testing and Materials A499–74, "Standard Specification for Hot-Rolled Rail Carbon Steel Bars and Shapes," revision of this Commercial Standard would serve no useful purpose. This action is taken in furtherance of the Department's announced intentions as set forth in the public notice appearing in the FEDERAL REGISTER of January 3, 1975 (40 FR 818), to withdraw this standard.

The effective date for the withdrawal of this standard will be May 12, 1975. This withdrawal action terminates the authority to refer to this standard as a voluntary standard developed under the Department of Commerce procedures.

RICHARD W. ROBERTS,
*Director.*

MARCH 5, 1975.

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